



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

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Firestone Building Products Company, LLC
250 West 96th Street
Indianapolis, IN 46260

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Firestone UltraPly TPO SA Single Ply Roof Systems over Wood Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This new NOA consists of pages 1 through 12.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 14-0606.03
Expiration Date: 12/17/20
Approval Date: 12/17/15
Page 1 of 12

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply Roofing
Material: TPO
Deck Type: Wood
Maximum Design Pressure: -67.5 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
UltraPly TPO SA	Various	TAS 131 ASTM D6878	Reinforced TPO 0.045" or 0.060" thick membrane.
UltraPly TPO Reinforced Curb Corner	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly 18" Curb Flashing	Various	TAS 131 ASTM D6878	TPO curb flashing
UltraPly TPO Inside/Outside Corner	Various	TAS 131 ASTM D6878	Molded TPO for corner flashing
UltraPly TPO Large Pipe Flashing	Various	TAS 131 ASTM D6878	TPO flashing for large round penetrations
UltraPly TPO T-Joint Cover	Various	TAS 131 ASTM D6878	TPO flashing for T-joints
UltraPly TPO Penetration Kit	Various	TAS 131 ASTM D6878	Penetration sealing kit for UltraPly TPO
UltraPly TPO Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Coated Metal	Various	TAS 131 ASTM D6878	TPO laminated to hot-dipped galvanized steel for flashing
UltraPly TPO Premium Walkway Pad	Various	TAS 131 ASTM D6878	TPO walkway pad
UltraPly TPO Reinforced Split Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 9" in diameter
UltraPly TPO 8" Reinforced Cover Strip	Various	TAS 131 ASTM D6878	8" wide 60 mil TPO cover strip
UltraPly TPO Universal Pipe Boot	Various	TAS 131 ASTM D6878	TPO flashing for round penetrations 1" to 6" in diameter
UltraPly TPO Unsupported Flashing	Various	TAS 131 ASTM D6878	Unreinforced TPO used for flashing



APPROVED INSULATIONS:**TABLE 2**

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL (flat and tapered)	Polyisocyanurate foam insulation	Firestone Bldg. Products
ISOGARD HD	Polyisocyanurate with a coated fiberglass facer	Firestone Bldg. Products
ISOGARD HD Composite	Polyisocyanurate with a coated fiberglass facer composite insulation.	Firestone Bldg. Products
DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
RESISTA (flat and tapered)	Polyisocyanurate foam core laminated to a coated fiberglass facer.	Firestone Bldg. Products
SECUROCK Gypsum-Fiber Roof Board	Rigid, gypsum-based board stock	USG Corp.

APPROVED FASTENERS:**TABLE 3**

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Firestone Heavy-Duty	#15 Fastener for steel, Wood, concrete decks.	N/A	Firestone Bldg. Products
2.	Firestone All-Purpose	#14 Fastener for steel, Wood, concrete decks.	N/A	Firestone Bldg. Products
3.	Insulation Fastening Plate	Galvalume insulation plate.	3" diameter	Firestone Bldg. Products

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Underwriters Laboratories Inc.	UL R9516	UL 790	09/29/14
FM Approvals	3052525	FM 4470	02/20/15
PRI Construction Materials Technologies, LLC	FBP-208-02-01	TAS 131/ASTM D6878	04/16/15
	FBP-213-02-01	TAS 114 J	11/20/14
	FBP-220-02-01.1	TAS 114 J	01/29/15
	FBP-230-02-01	TAS 114 J	04/02/15
	FBP-233-02-01	TAS 114 J	06/01/15
	FBP-233-02-02	TAS 114 C	04/03/15
	FBP-239-02-01	TAS 114 J	07/15/15
	FBP-044-02-01.7	TAS 114 D, H, J TAS 117 A, B ASTM D1876 & D903	05/01/15



APPROVED ASSEMBLIES:

Membrane Type: Single Ply, TPO, Reinforced

Deck Type 1I: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(1): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA

One or more layers of any of the following insulations:

Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board Minimum 1/4" thick	1 or 2 with 3	1:1.78 ft ²
RESISTA Minimum 1" thick	1 or 2 with 3	1:1.78 ft ²

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Min. 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type 1I: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(2): Membrane fully adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISOGARD HD Composite Minimum 1-1/2" thick	1 or 2 with 3	1:2.67 ft ²

Note: Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -45 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type II: Wood, Insulated

Deck Description: Minimum 19/32" plywood

System Type C(3): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
DensDeck Prime, SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	1 or 2 with 3	1:2.67 ft ²
ISOGARD HD Composite Minimum 1-1/2" thick	1 or 2 with 3	1:2.67 ft ²
RESISTA Minimum 2" thick	1 or 2 with 3	1:2.67 ft ²

Note: Base Insulation layer shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 60 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -52.5 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type II: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(4): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	1 or 2 with 3	1:2.13 ft ²

Note: Base Insulation layer shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 3" wide side laps.

Maximum Design Pressures: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type 1I: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(5): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
RESISTA Minimum 1-1/2" thick	1 or 2 with 3	1:1.78 ft ²

Note: Base Insulation shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -60 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type II: Wood, Insulated

Deck Description: Minimum 19/32" plywood

System Type C(6): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
ISOGARD HD Minimum 1/2" thick	1 or 2 with 3	1:2.13 ft ²
RESISTA Minimum 1" thick	1 or 2 with 3	1:2.13 ft ²

Note: Base Insulation layer shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 60 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -55 psf. (See General Limitation #9)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type II: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(7): Membrane self- adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
DensDeck Prime Minimum 1/2" thick	1 or 2 with 3	1:1.78 ft ²

Note: Base Insulation layer shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -52.5 psf. (See General Limitation #7)

Membrane Type: Single Ply, TPO, Reinforced

Deck Type II: Wood, Insulated

Deck Description: Minimum 15/32" plywood (19/32" for new construction) attached to structural supports spaced a maximum 24" o.c. with 0.113" ring shank nails spaced 6" o.c.

System Type C(8): Membrane self-adhered over mechanically fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL, RESISTA Minimum 1/2" thick	NA	NA
Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density Density/ft²
SECUROCK Gypsum Fiber Roof Board Minimum 1/2" thick	1 or 2 with 3	1:1.78 ft ²
ISOGARD HD Composite Minimum 1-1/2" thick	1 or 2 with 3	1:1.78 ft ²

Note: Base Insulation layer shall be loose laid and top Insulation layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density. See Roofing Application Standard RAS 117 for fastening details.

Membrane: Minimum 45 mil UltraPly TPO SA self-adhered with 1.5" wide heat weld at the 2" wide side laps.

Maximum Design Pressures: -67.5 psf. (See General Limitation #7)

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

